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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/508,378  | 06/02/2000  | JEAN-YVES SANCHEZ    | 032013-024          | 7406             |
| 7590 03/03/2004   |             |                      | EXAMINER            |                  |
| E JOSEPH GESS<br>BURNS DOANE SWECKER & MATHIS<br>PO BOX 1404<br>ALEXANDRIA, VA 22313-1404 |             |                      | ZALUKAEVA, TATYANA  |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1713                |                  |

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/508,378

Applicant(s)

SANCHEZ ET AL.

Examiner

Tatyana Zalukaeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5,14,16,38-42 and 44-49 is/are pending in the application.
- 4a) Of the above claim(s) 44-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,14,16 and 38-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1,5,14,16,38-42 and 44-49 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 6, 2004 has been entered.
2. Claim 1 and dependent claims have been amended to limit them to elected species polymer's molecular architecture, however, the three dimensional polymers include a methacrylonitrile and a variety of methacrylic comonomers. In the instantly amended claims the metal salt is always present, and this metal salt can be attached or not attached to a polymer.
3. New claims 44-49 are presented. Newly submitted claims 44-49 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the species of comonomers if initially presented would have been subjected to an election requirement, on the basis of patentably distinct species claimed. A MAN/glycidyl methacrylate copolymer was elected by Applicants as a representative copolymer.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 44-49 are withdrawn from consideration

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as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims readable on the species elected by Applicants in Paper No.8 namely claims 1, 5, and 14. 16, 38, 39, 40, 41, 42 are examined on the merits.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 5, 14, 38, 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Schroeder (U.S. 4,187,353).

Schroeder discloses polymeric material comprising a copolymer of acrylic and/or methacrylic acid and acrylonitrile or methacrylonitrile (abstract, col.3, lines 62-64), and further one or more monomers, such as lower esters of acrylic and methacrylic acid (paragraph bridging col.3 and 4). Specific embodiment readable on the instant claims 1, 5, 14, 38 is the one disclosing a polymer of methacrylic acid, methacrylonitrile containing a chromium methacrylate as a **metal salt**, described in col.3, lines 26-30.

See also examples 1-17 in col.5. With regard to claim 39 see example 33 in col.7.

The preamble in the instant case recites a statement of intended use or purpose, and as a rule does not limit the scope of the claim, since the statements in preamble merely define the context in which the invention operates, DeGeorge v. Bernier, 226 USPQ 758,761, n.3 (Fed.Cir. 1985), and therefore the preamble is not accorded a patentable weight.

6. Claim Claims 1, 5, 14. 16, 38, 39, 40, 41, 42 rejected under 35 U.S.C. 102(b) as being anticipated by JP 62219469.

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A polymer polyelectrolyte is disclosed, which is selected from a group of a homopolymer or copolymer of methyl or ethyl ester of acrylic acid, a copolymer of methyl or ethyl ester of acrylic acid and methyl or ethyl ester of methacrylic acid, polyvinyl alkyl ether and methacrylonitrile and is used as a gelation-causing agent. The number average molecular weight of the polymer is about 5,000-200,000. the composition is composed of a nonaqueous electrolyte polymer of a nonaqueous solvent and a lithium salt (abstract), wherein Lithium salts are exemplified as  $\text{LiCF}_3\text{SO}_3$  or  $\text{LiBr}$  on page 369. The translation of JP'469 has been ordered and will be available to Applicants upon completion of translation.

7. Claims 1, 5, 14, 38, 39, 40, 41, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akashi et al U.S. 5,658,686.

Akashi discloses a salt of polymer electrolyte that is further dissolved in a solvent (abstract), wherein an acrylonitrile and a copolymerizable copolymer, such as butadiene, vinyl chloride, methacrylate, etc are used (col.3, lines 42-58) in the presence of lithium salt, such as  $\text{LiPF}_6$  (col.4, lines 63-65).

The disclosure of Akashi differs from the instant claims by disclosing acrylonitrile vs. methacrylonitrile of the instant claims. However, structural similarities have been found to support a prima facie case of obviousness. See, e.g., *In re May*, 574 F.2d 1082, 1093-95, 197 USPQ 601, 610-11 (CCPA 1978) (stereoisomers); *In re Wilder*, 563 F.2d 457, 460, 195 USPQ 426, 429 (CCPA 1977) (adjacent homologs and structural isomers); *In re Hoch*, 428 F.2d 1341, 1344, 166 USPQ 406, 409 (CCPA 1970) (acid and ethyl ester); *In re Druey*, 319 F.2d 237, 240, 138 USPQ 39, 41 (CCPA 1963) (omission

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of methyl group from pyrazole ring). Generally, some teaching of a structural similarity will be necessary to suggest selection of the claimed species or subgenus, and therefore a person skilled in the art would have found obvious that structurally similar acrylonitrile and methacrylonitrile would exhibit similar functional behavior and will thus arrive at the instantly claimed subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tatyana Zalukaeva  
Primary Examiner  
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February 17, 2004